REMARKS/ARGUMENTS

Claims 1 through 15 and 17 through 24 are pending in the present application. Claim 1 is independent. Claims 2 through 15 and 17 through 20 depend from claim 1. Claims 21 and 22 are independent and claims 23 through 24 depend from claim 22. Claim 16 has been cancelled without prejudice.

In the Action, claim 21 was rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claim 21 to correct the 35 U.S.C. § 112, second paragraph and make claim 21 definite. Applicant believes that claim 21 is now in condition for allowance. Reconsideration and withdrawal of the rejection of claim 21 are respectfully requested.

In the Action, claims 1, 4, 5, 10, 13 through 15, 19 and 22 were all rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent No.: 6,493,556 B1 to Stinson (hereinafter "Stinson"). In response, applicant respectfully traverses this rejection on the grounds that Decker neither discloses nor suggest all of the elements set forth in independent claim 1.

Claim 1 provides for a method of cost-sensitive control of data transfer between a mobile entity and a data network through a cellular radio infrastructure. The method comprises steps carried out at a service system. The first step (a) is of receiving a transfer descriptor indicative of, at least generally, the end points of a required data transfer, and transfer criteria to be met by this transfer. These criteria have at least a cost criterion, and a delay criterion. The delay criterion is indicative of an acceptably delay before transfer initiation.

The method further has the step of (b) determining by reference to both current and future data-transfer tariffs whether and, if so, how, the data transfer can be effected within the transfer criteria and has the step of (c) where step (b) produces a positive determination, instructing initiation of the data transfer in accordance therewith.

Stinson discloses a method of establishing a communication path between first and second subscriber units. The first subscriber unit is interfaced to a first communication network. The second subscriber unit is interfaced to a second communication network. The method has the steps of receiving information regarding a cost of routing data between the first and the second communication networks expressed as a function of time of day at a location of one of the first or second subscriber units.

The method further has the steps of receiving a quality of service indicator and determining a communications path between the first and the second subscriber units based on an optimization of the cost of the routing and the quality of service indicator.

The quality of service indicator is identified in the specification at col. 2, lines 67 through col. 3, line 6 as (1) "a maximum latency in data transmitted to and received from the subscriber unit"; (2) "a minimum limit of channel of bandwidth in the communication path"; and (3) "a maximum number of errors, such as a bit error rate". According to the International Telecommunication Union and Federal Standard 1037C, latency is defined to one of ordinary skill in the art as "an inherent delay of that communication path".

The method further has the step of routing to a master routing hub to a first subscriber by a communication network based on the optimization with the communication network including the first and the second communication

networks. The method still further has the step of routing by the master hub the first subscriber to the slave routing hub via one of the number of communication networks based on the optimization and routing by the slave hub the second subscriber to the first subscriber by one of the number of communication networks based on the optimization.

Stinson does not disclose or suggest any method of cost-sensitive control of data transfer between a mobile entity and a data network through a cellular radio infrastructure with the step of receiving a transfer descriptor indicative of at least generally, the end points of a required data transfer and of a transfer criteria to be met by this transfer with these criteria comprising at least a cost criterion, and a delay criterion, let alone one being indicative of an acceptable delay before transfer initiation.

In contrast, Stinson discloses a quality service indicator concerning the maximum latency in data transmitted to and received from the subscriber unit. This maximum latency is an inherent delay in the path and not any delay criterion, let alone one indicative of an acceptable delay before transfer initiation.

Stinson further does not disclose or suggest any delay criteria indicative of an acceptable delay before a transfer initiation. In contrast, Stinson discloses at col. 3, lines 19 through 21 a quality of service versus cost schedule. The schedule is expressed as a function of time of day for a particular network, not any delay criteria being indicative of an acceptable delay before a transfer initiation.

In fact Stinson teaches away from such a delay criteria at col. 2, lines 31 through 49. Stinson discloses a type of data that is transferred to a subscriber as being interactive services or current services. One skilled in the art would not be motivated in introducing any such delay criterion, let alone one

indicative of an acceptable delay before transfer initiation, after reviewing the current service teachings of Stinson. A routing hub would not arbitrarily make any decision based on such a delay as claimed in claim 1. Reconsideration and withdrawal of the rejection of claim 1 are respectfully requested.

Claim 5 discloses the method where the cost and delay criteria are jointly expressed as a delay-dependent cost function for which the acceptable delay before transfer can be effected decreases with the maximum acceptable cost for the transfer. Stinson does not disclose or suggest any cost and delay criteria, let alone one being jointly expressed as a delay-dependent cost function for which the acceptable delay before transfer can be effected decreases with the maximum acceptable cost for the transfer. Reconsideration and withdrawal of the rejection of claim 5 are respectfully requested.

Claims 4, 10, 13 through 15, and 19 all depend from claim 1. Reconsideration and withdrawal of the rejection of these claims are respectfully requested.

Claim 22 provides for a service system for effecting cost-sensitive control of data transfer between a mobile entity and a data network through a cellular radio infrastructure. The service system has an input. The input receives from a transfer requestor a transfer descriptor. The transfer desciptor is indicative of the end points of a required data transfer, and transfer criteria to be met by the data transfer. The criteria has at least a cost criterion, and a delay criterion indicative of an acceptable delay before transfer can be effected. The system further has a determination device for determining by reference to both current and future data-transfer tariffs whether and, if so, how, the data transfer can be effected within the transfer criteria. The system further has an output responsive to a positive determination by the determination device to send a message for instructing initiation of the data transfer in accordance with that determination.

Stinson does not disclose or suggest any such service system having an input for receiving from a transfer requestor a transfer descriptor indicative of a number of end points of a required data transfer, and a transfer criteria to be met by the data transfer with such transfer criteria having the criteria of a cost criterion, and a delay criterion indicative of an acceptable delay before transfer can be effected. As mentioned above, Stinson discloses, at most, a latency, or an inherent delay introduced by the communication path. Moreover, Stinson does not disclose or suggest any such determination device for determining by reference to both current and future data-transfer tariffs. Reconsideration and withdrawal of the rejection of claim 22 are respectfully requested.

In the Action, claims 2, 3, 6, through 12, 16 through 18, 20 through 21 were rejected under 35 U.S.C. § 103(a) as being obvious over Stinson in view of European Patent Application No.: EP 0848 560 A2 to Shaffer (hereinafter "Shaffer"). In response, applicant submits that the cited and relied upon Stinson and Shaffer do not support a prima facie rejection of obviousness under 35 U.S.C. § 103(a). Applicant submits that Stinson alone or in combination with Shaffer neither discloses nor suggests applicant's claimed invention. Applicant respectfully traverses this rejection on the grounds that there is no disclosure, suggestion or motivation in either reference for the modification argued by the Office. Also, Stinson, Shaffer and the combination thereof, even if technically feasible, which is not admitted as possible, do not render applicant's claimed invention obvious.

Shaffer discloses a method of managing a communication routing. The method has the steps of accessing capability to exchange communication data between remotely located sites. The method further has the step of monitoring one or more modes to determine present time quality of service parameter values. The method further has the step that the present time quality of service parameter values is either input by a party or is implied. (See col. 8, lines 23 through 26). The method further has the step of making a

preliminary transfer mode selection being the least expensive mode that can also guarantee a request. The cost of this mode is a threshold cost. Thereafter, the method has the step of examining whether the actual current present time quality of service parameter value is below the threshold cost and "meets" the requested present time quality of service parameter value, and if so, the mode is changed.

Stinson, Shaffer and the combination thereof do not disclose or suggest any step of receiving a transfer descriptor indicative of, at least generally, the end points of a required data transfer and of transfer criteria to be met by this transfer, let alone one with these criteria comprising a cost criterion. Stinson, Shaffer and the combination thereof also do not disclose or suggest any such criteria further having a delay criterion being indicative of an acceptable delay before transfer initiation.

In contrast, Shaffer discloses at col. 7, lines 52 through 54, a monitor device. The monitor device collects statistical information. The statistical information relates to the quality of service, such as delay, latency, jitter, and a data loss. At col. 2, lines 23 through 36, latency is identified in an ATM environment as a measure of time required for a cell to reach a receiving station. At col. 6, lines 13 through 30 of Shaffer, the quality of service parameter values include packet loss, latency, and jitter. Shaffer further discloses that "actual delay" or latency may be 15 milliseconds if the traffic along the communication lines is low.

Clearly, Shaffer discloses that the actual delay is used in the sense of transit delay through a network and specifically does not disclose or suggest any transfer criteria comprising a cost criteria and a delay criteria being indicative of an acceptable delay before a transfer initiation. Moreover, Shaffer discloses in one particular embodiment at col. 11, lines 56 through col. 12, line 16 that if the mode does not currently meet the parameter then the transfer

request is deferred until an acceptable combination of parameter and tariff is reached. Thus, Stinson, Shaffer and the combination thereof do not disclose or suggest any delay criterion being indicative of an acceptable delay before transfer initiation.

Furthermore, Stinson, Shaffer and the combination thereof do not disclose or suggest any step of determining by reference to both current and future data-transfer tariffs whether and, if so, how, the data transfer can be effected within the transfer criteria. In contrast, Shaffer discloses consideration on on-going parameters for the modes that have the acceptable threshold cost. See col. 11, line 56 through 58 and col. 12, lines 1 through 11. Accordingly, claim 1 is patentable over the cited and relied upon references. Claims 2, 3, 6, through 12, 17 through 18, and 20 all depend from claim 1. Reconsideration and withdrawal of the rejection of these claims are respectfully requested. Claim 21 is patentable for reasons similar to those argued above for claim 1. Reconsideration and withdrawal of the rejection of claim 21 are respectfully requested.

In view of the foregoing, applicant respectfully submits that all of claims 1 through 15 and 17 through 24 are in condition for allowance and patentably distinguish over the cited and relied upon references. Accordingly, applicant respectfully requests favorable consideration and that the application be passed to allowance.

Respectfully Submitted,

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